IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

CHRISTOPHER CRENSHAW, administrator of the Estate of THOMAS CRENSHAW	:	CIVIL DIVISION
Plaintiff,	:	
v.	:	
UNITED STATES OF AMERICA	:	
Defendant.	:	NO. 02-CV-4006

PRETRIAL MEMORANDUM OF THE UNITED STATES

Defendant United States of America, by and through its attorneys, Patrick L. Meehan, United States Attorney in and for the Eastern District of Pennsylvania, and Paul G. Shapiro, Assistant United States Attorney for the same district, submits the following pretrial memorandum pursuant to Local Rule of Civil Procedure 16.1(c) and the orders of this Court.

I. NATURE OF THE ACTION AND JURISDICTION

Jurisdiction of this Court is based upon the Federal Tort Claims Act, 28 U.S.C. §§ 1346(b), 2671-2680 ("FTCA"). Thomas Crenshaw, the decedent, was a patient at the Veterans Administration Medical Center, Philadelphia, Pennsylvania ("Medical Center"). His estate ("plaintiff") seeks compensation under the FTCA for an alleged act of medical malpractice.

II. COUNTER-STATEMENT OF FACTS

A. Admission I - Jan. 16 to Jan 29, 2001

Thomas Crenshaw arrived at the Philadelphia VA Medical Center ("Medical Center") on January 16, 2001 complaining of shortness of breath ("dyspnea") upon exertion and the accumulation of fluids ("edema") in his legs. Mr. Crenshaw denied having had any chest pains. He remained an inpatient in the Medical Center until January 29, 2001.

Mr. Crenshaw was not a stranger to the Medical Center. He had been treated there since 1993. In particular, Mr. Crenshaw had been treated for high blood pressure, a problem of which he had been aware since at least fifteen years before his initial visit to the Medical Center in 1993. Mr. Crenshaw was also chronically overweight and was unable to stop smoking. Mr. Crenshaw's prior history with the Medical Center was remarkable for the recurrence of occasions on which he ran out of, or failed to renew, his blood pressure medications.

On his admission to the Medical Center on January 16, 2001, he was diagnosed with new onset atrial fibrillation (i.e. the irregular beating of the atrium of his heart). This seemed to have developed at about the same time as Mr. Crenshaw's shortness of breath.[1] Specifically, as little as a week prior to his admission, Mr. Crenshaw could walk over a mile without any shortness of breath. During that week, however, his shortness of breath increased to the point where he was short of breath upon walking 100 meters. Mr. Crenshaw came to the Medical Center, was admitted, and his atrial fibrillation was diagnosed. Once admitted, he was determined to have had a small "non-Q-wave MI [myocardial infarction]" - i.e. a small heart attack - and congestive heart failure (i.e. the accumulation of fluid in his lungs).

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[1] Indeed, atrial fibrillation frequently causes shortness of breath.

During this January 2001 admission Mr. Crenshaw was treated with a variety of medicines. Among the medicines were an aggressive regimen of diuretics, which drained the excess liquids evident in his legs and lungs, as well as drugs to control his heart rate. This course of medicine resulted in a "marked improvement in his shortness of breath and a decrease in his clinical signs of fluid overload . . . ."

Mr. Crenshaw underwent several tests during this first admission. On January 17, 2001, Mr. Crenshaw underwent a Trans Thoracic Echocardiogram ("TTE"), in which his heart was visualised by means of a probe placed on the outside of his chest. Among other things, that test disclosed that Mr. Crenshaw had a normal "ejection fraction" (a measure of the amount of blood expelled by the heart) of 55%.

Two days later, on January 19, 2001, Mr. Crenshaw was provided with a Nuclear Stress Test. This test compares the ability of a person's circulatory system to infuse his heart with blood when he is at rest and when he is exercising.[2] Specifically, the test determines (i) which areas of the heart are supplied with blood both at rest and exercise and (ii) which areas are supplied with blood only at rest. Any areas that get adequate supply both at rest and at exercise are healthy and do not need immediate attention. Any areas that do not get supplied with blood either at rest or at exercise are dead, and cannot be helped (so called "fixed defects"). However, to the extent that there are <u>significant</u> areas that do get adequate supply at rest but not during exercise (so called "reversible defects"), those areas may be candidates for bypass surgery, but

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[2] The comparison is made at exercise and at rest because the heart of a person who is exercising requires a greater supply of blood than the heart of a person at rest. Thus, while an impaired circulatory system may not show an inadequate supply of blood at rest, that same system may well disclose an inadequate supply of blood during exercise.

only if it is deemed otherwise advantageous to re-supply them with blood. As reported by the Medical Center staff, this test showed one fixed defect, one fixed defect with slight reversibility at the edges, and one moderate sized reversible defect.

On January 23, 2001, Mr. Crenshaw was provided with a Cardiac Catheterization. This test visualizes the vessels supplying the heart with blood and discloses any blockages in the vessels. This test is recorded on videotape for temporary viewing (the "loops") and is permanently preserved on film (the "cardiac catheterization film"). The cardiologist who administered the test, Dr. Li, prepared a preliminary report on the date of the examination and prepared a final report based on the film within a few days. Although Dr. Li found disease in all three coronary arteries, his findings of primary relevance to the legal issues in this case relate to the Left Anterior Descending artery (the "LAD").[3] In his preliminary report, Dr. Li found that there was a 50% blockage of the proximal LAD, a 60% blockage of the mid LAD and a 60-70% blockage of the distal LAD. Dr. Li's final report agreed with these preliminary assessments except that the distal LAD was determined to be only 50% blocked.

On January 25, 2001, Mr. Crenshaw was provided with a Trans Esophageal Echocardiogram ("TEE"), in which his heart was visualised by means of a probe placed down the throat. Significantly, this test showed that Mr. Crenshaw had a blood clot in his left atrium. This

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[3] Arteries are divided into "proximal," "mid" and "distal" segments depending on the particular portion's distance from the origin of the blood vessel. These labels not only serve to pin-point a sub-area within the length of a vessel, but have substantial significance from a blood supply perspective. As with the branch of a tree, the further out one goes, the less significant becomes the remainder of the supply system. Thus, a blockage of the proximal portion of a vessel threatens far greater damage than the blockage of the distal portion of that same vessel for the same reasons that the severance of a major branch at the trunk of a tree is far more significant than the loss of that same branch out at its very tip.

meant that Mr. Crenshaw's attending cardiologist, Dr. Elizabeth Tarka, could not "cardiovert" him. Cardioversion is a process in which an electrical current is passed through the heart to return it from atrial fibrillation to its normal sinus rhythm.

Based on Mr. Crenshaw's clinical situation, including the results of his tests, his medical team developed a plan to deal with his several interlocking medical problems. First, because Dr. Tarka and the rest of Mr. Crenshaw's medical team believed that his shortness of breath and other symptoms were due in the first instance to his atrial fibrillation, and because he could not be cardioverted in the presence of the extant clot, Mr. Crenshaw was placed on blood thinners. The plan was adequately to thin Mr. Crenshaw's blood, to readmit him, and then to cardiovert him back to a normal sinus rhythm. In the mean time, Mr. Crenshaw would be kept on medication to control his heart rate. Once he had been cardioverted, the rate control medication would be discontinued as no longer necessary.

Second, Mr. Crenshaw's high blood pressure would be managed through medication. He would also be followed as an outpatient.

Mr. Crenshaw's third issue was his coronary artery disease. Although he had moderate three vessel disease, based on the size and locations of the blockages, as well as the absence of viable heart tissue that could be re-supplied, it was clear that Mr. Crenshaw was not a candidate for bypass surgery. It was also clear that the medications he had been taking in the hospital had significantly improved his condition.

Finally, the medical team addressed Mr. Crenshaw's retention of fluids by prescribing the diuretic Lasix. Thus, Mr. Crenshaw was discharged with medications for his atrial fibrillation, his coronary artery disease, and his accumulation of fluids. He was to be followed on an

outpatient basis for these conditions as well as to check on the progress of the blood thinning agents. He was discharged on January 29, 2001 in stable condition.

B. Emergency Room Visit - Feb. 7, 2001

On February 7, 2001, Mr. Crenshaw returned to the Medical Center complaining of increased shortness of breath (walking 500 feet) and swollen legs since his discharge January 29. He was referred to the emergency room where he was evaluated. His dose of diuretics was increased with good result.

C. Clinic Visit - Feb. 12, 2001

On February 12, 2001, Mr. Crenshaw attended his regularly scheduled visit to the clinic to check his blood thinners. He reported that he was feeling much better on the increased dose of Lasix (the diuretic) after his visit to the emergency room on February 7.

D. Admission II - Feb. 19 to Feb. 23, 2001

On February 19, 2001, Mr. Crenshaw again arrived at the Medical Center emergency room. He reported that he had run out of medications. He also reported that he had become short of breath that day. He denied having any chest pain. Nonetheless, he was evaluated and ruled out for a heart attack. He was found, however, to remain in atrial fibrillation.

During the course of this second hospital admission, Mr. Crenshaw was treated by the Medical Center's Chief of Cardiology, Dr. Frederick Samaha. On February 21, 2001 Dr. Samaha wrote that Mr. Crenshaw's atrial fibrillation rate was well controlled and that he would be discharged on oral medication. His note continued that Mr. Crenshaw would be a candidate for cardioversion after at least six weeks of having his blood appropriately thinned, and that he (Dr. Samaha) had spent a significant amount of time explaining this option to Mr. Crenshaw. Dr.

Samaha also wrote that he had personally reviewed the cardiac catheterization film, and that there was no clear need for "revascularization" (i.e. surgery) especially in the absence of any anginal symptoms.[4]

On February 22, 2001 Mr. Crenshaw refused to leave the Medical Center despite the fact that there was no medical reason for him to remain in the hospital. In light of the impending snow storm, he was allowed to remain overnight. He was discharged the following day "in good condition."

E. Clinic Visit - March 2, 2001

On March 2, 2001 Mr. Crenshaw was seen by Dr. Dunkman for a cardiology outpatient visit. Dr. Dunkman reported progress in Mr. Crenshaw's condition, noting that before the January admission he could walk only 50 meters whereas he could now walk over 150 meters. However, Dr. Dunkman noted that Mr. Crenshaw would get short of breath at 100 meters and was still planning on cardioversion after six weeks of therapeutic anticoagulation. Dr. Dunkman also noted that Mr. Crenshaw had never had angina.

F. Primary Care Visit - March 13, 2001

On March 13, 2001 Mr. Crenshaw visited his primary care physician, Dr. Murphy. He reported that he was taking his medications, that he became short of breath on moderate exertion and that he did not have any chest pain. Dr. Murphy found that his atrial fibrillation was stable and that the rate control was good. Dr. Murphy recommended additional medication to control

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[4] Angina is the result of transient inadequate supply of blood to the heart. It is generally characterized by pain, heaviness, tightness or pressure in the chest or arms. Mr. Crenshaw consistently denied experiencing any of these symptoms. Plaintiff's experts have sought to portray Mr. Crenshaw's shortness of breath without any pain, tightness or pressure as an "anginal equivalent."

Mr. Crenshaw's blood pressure, but Mr. Crenshaw refused, preferring to try improved diet and weight reduction.

G. *Lourdes Hospital - March 26, 2001*

On March 26, 2001, emergency medical personnel were summoned to assist Mr. Crenshaw at his car in Camden, New Jersey. When they arrived they found him in severe distress. He did not, however, report any chest pain. Rather, he reported only severe shortness of breath. Mr. Crenshaw was rushed to Our Lady of Lourdes Hospital in Camden. Although he was treated there by another physician, Dr. Shawn Carnevale signed the death certificate. Dr. Carnevale based his determination of cause of death only on the medical record compiled by Our Lady of Lourdes on March 26, 2001, and not on any of the information contained in the Medical Center records discussed above.

According to Dr. Carnevale, given Mr. Crenshaw's history and clinical presentation as they appeared in the record before him, there were two potential causes of death: myocardial infarction (i.e. heart attack) and pulmonary embolism (i.e. blood clot to the lung). According to Dr. Carnevale, the clinical presentations of these two acute episodes could be very similar. It is, however, a medical fact that the majority of massive fatal heart attacks are accompanied by chest pain. The single way to determine whether Mr. Crenshaw died of a pulmonary embolism rather than a heart attack would be by autopsy. In Mr. Crenshaw's case, his family denied an autopsy.

H. *Allegations Of Medical Malpractice*

By letter dated October 14, 2002, plaintiff's expert, Dr. Joseph Weidermann, alleged that the physicians at the Medical Center had misread the cardiac catheterization film. Specifically, Dr. Weidermann charged that Dr. Li had failed to identify an 80-90% stenosis (i.e.

blockage) of the proximal LAD artery and that doctors Tarka and Dunkman had accepted Dr. Li's erroneous misinterpretation. In his letter of July 21, 2003, Dr. Weidermann reiterated his charge that doctors Li and Tarka had failed properly to interpret the cardiac catheterization film. In this report, however, Dr. Weidermann not only added Dr. Samaha to his list of allegedly deficient physicians, but he actually resorted to *ad hominem* attacks, accusing all three doctors of "ignorance."

Shortly after Dr. Weidermann rendered his second report, the plaintiff supplied the report of a second expert, Dr. Jock McCullough, a cardiac surgeon. Dr. McCullough read the same cardiac catheterization film that had led Dr. Weidermann to charge medical malpractice, but issued an opinion that essentially agreed with the readings provided by Dr. Li, Dr. Tarka, and Dr. Samaha. Despite the fact that he did not disagree with the Medical Center's reading of the film, Dr. McCullough nonetheless opined that bypass surgery was warranted even with the much less significant blockages that he agreed were present. Moreover, despite the fact that he did not purport to be a cardiologist, he opined that it was malpractice for the Medical Center's cardiologists to fail to refer Mr. Crenshaw for such surgery.

III. UNITED STATES' EXPERT WITNESSES

A. Zoltan Turi, M.D.
Professor of Medicine, Robert Wood Johnson Medical School, UMDNJ
Director, Cooper Vascular Center and Structural Heart Disease Center
Cooper University Hospital
Camden, NJ 08103
(Dr. Turi's CV is attached as Exhibit A.)

Summary: Dr. Turi will testify in accordance with his expert report and deposition testimony. He will opine that the Medical Center physicians (Drs. Li, Tarka and Samaha) as well

as plaintiff's expert surgeon correctly interpreted the cardiac catheterization film and that Dr. Weidermann's opinion that there is a 80-90% blockage of the proximal LAD is not supported by the film. He will further opine that, based on Mr. Crenshaw's clinical presentation, the Medical Center cardiologists correctly treated him with medical management rather than with bypass surgery. He will further opine that cardiologists in the Philadelphia medical community would overwhelmingly consider a patient such as Mr. Crenshaw suitable for medical management and unsuited for surgical intervention.

B. Luis I. Araujo, MD
Director, Nuclear Cardiology
Associate Professor of Radiology and Medicine
University of Pennsylvania School of Medicine
Philadelphia, PA 19104
(Dr. Araujo's CV is attached as Exhibit B)

Summary: Dr. Araujo will testify in accordance with his report and deposition. He will opine that the nuclear stress test performed on Mr. Crenshaw did not demonstrate that any value would be achieved from pursuing surgery in his case as opposed to medical management. He will also opine that Mr. Crenshaw's cardiac catheterization film does not demonstrate the 80-90% blockage of the proximal LAD claimed by Dr. Weidermann.

IV. UNITED STATES' FACT WITNESSES

A. Robert Li M.D.
Staff Physician, Presbyterian Medical Center
Clinical Associate, University of Pennsylvania School of Medicine
Philadelphia, PA

Summary: Dr. Li was the cardiologist and angiographer who performed the cardiac catheterization that gave rise to this litigation. Dr. Li will testify to his interpretation of

the catheterization and the film including the fact that they do not show a 80-90% blockage of the proximal LAD as claimed by plaintiff's expert, Dr. Weidermann.

B. Elizabeth Tarka, M.D.
Director, Cardiovascular/Urology Therapeutic Area
GlaxoSmithKline
2301 Renaissance Blvd
King of Prussia, PA 19406

Summary: Dr. Tarka was Mr. Crenshaw's attending cardiologist starting January 22, 2001 and ending with the conclusion of his first hospital admission. Along with the rest of Mr. Crenshaw's medical team, Dr. Tarka determined that medical rather than surgical treatment would be appropriate given his clinical presentation. Dr. Tarka will testify about Mr. Crenshaw's medical situation, the treatment rendered, the alternatives available, and the standard of care in the Philadelphia cardiology community.

C. Frederick Samaha, M.D.
Chief of Cardiology, Philadelphia VAMC
Assistant Professor of Medicine
University of Pennsylvania
Philadelphia, PA 19104

Summary: Dr. Samaha was at all relevant times the Chief of Cardiology of the Medical Center and acted as Mr. Crenshaw's attending cardiologist during his second hospital admission from February 16-23, 2001. Dr. Samaha will testify in accordance with his deposition and the medical records about the care, treatment and prognosis of Mr. Crenshaw. He will also testify about the about the bases on which Mr. Crenshaw was treated medically rather than surgically, and the standard of care in the Philadelphia cardiology community.

D. Bruce Dunkman, M.D.
Attending Cardiologist, Philadelphia VAMC
Philadelphia, PA 19104

Summary: Dr. Dunkman was an attending cardiologist who cared for Mr. Crenshaw on an outpatient basis. Dr. Dunkman will testify to the care, treatment and prognosis of Mr. Crenshaw. He will also testify about the about the bases on which Mr. Crenshaw was treated medically rather than surgically, and the standard of care in the Philadelphia cardiology community.

E. John Murphy, M.D.
Internist, Philadelphia VAMC
Philadelphia, PA 19104

Summary: Dr. Murphy was Mr. Crenshaw's primary care physician who cared for him on an outpatient basis. Dr. Murphy will testify to the care, treatment and prognosis of Mr. Crenshaw.

F. Kevin Takakuwa, M.D.
Resident, Emergency Medicine
University Of Pennsylvania
Philadelphia, PA 19104

Dr. Takakuwa was a resident at the Medical Center who treated Mr. Crenshaw during his second admission in February 19-23, 2001. He will testify to the care, treatment and prognosis of Mr. Crenshaw.

V. JOINT EXHIBITS

J-1 VA MEDICAL RECORDS - January 16, 2001 (Admission I)
Pages 1-362
Pages 300A-G

J-2 VA MEDICAL RECORDS - February 19, 2001 (Admission II)
Pages 363-505

J-3 OUTPATIENT CONSULTATIONS - (various dates)
Pages 506-509

J-4 OUTPATIENT - Labs, Radiology & EKG's (various dates)
Pages 510-538

J-5 PROGRESS NOTES (various dates)
Pages 539-588

J-6 OUTPATIENT PHYSICIAN'S ORDERS
Pages 589-595

J-7 OUTPATIENT PHARMACY SUMMARY
Pages 596-603

J-8 TTE REPORT - (January 17, 2001)

J-9 NUCLEAR STRESS TEST REPORT - (January 19, 2001)
Pages 225-260

J-10 PRELIMINARY CATH. Report - (January 23, 2001)
Page 241

J-11 FINAL CATH. REPORT - (January 2001)

J-12 TEE REPORT - (January 25, 2003)

J-13 DEATH CERTIFICATION

J-14 NJ DEPARTMENT OF CORRECTIONS REPORTS - (March 26, 2001)

J-15 EMT REPORT (UMDNJ) - (March 26, 2001)

J-16 LOURDES MEDICAL RECORDS - (March 26, 2001)

J-17 HEART DIAGRAM

J-18 ORIGINAL CARDIAC CATHETERIZATION FILM (January 23, 2001)

J-19 NUCLEAR FILM

J-20 DEPOSITION TRANSCRIPT EXCERPTS OF DR. CARNEVALE

J-21 DEPOSITION TRANSCRIPT OF LORRAINE TARASKUS

VI. UNITED STATES' EXHIBITS

G-1 SAMPLE NUCLEAR STUDIES

G-2 SAMPLE CARDIAC CATHETERIZATION FILMS

G-3 CV OF Dr. ELIZABETH TARKA

G-4 CV OF Dr. ROBERT LI

G-5 CV OF Dr. FREDERICK SAMAHA

G-6 CV OF Dr. BRUCE DUNKMAN

G-7 CV OF Dr. JOHN MURPHY

G-8 CV OF Dr. KEVIN TAKAKUWA

G-9 JOURNAL ARTICLE: Comparison of the Short-Term Survival Benefit Associated With Revascularization etc; Circulation. 2003; 107:2899-2906.

VII. UNITED STATES' LEGAL ISSUE

The United States believes that this case will present the legal issue of whether Dr. McCullough, as a surgeon, is competent to testify as to the standard of care applicable to a cardiologist in the Philadelphia medical community. Under Pennsylvania's Medical Care Availability and Reduction of Error (MCARE) Act, an expert testifying as to a specialist's

standard of care must meet three requirements:

(1) be substantially familiar with the applicable standard of care for the specific care at issue as of the time of the alleged breach;

(2) practice in the same subspecialty or in a subspecialty which has a substantially similar standard of care, except as waived by the court under the statute; and

(3) be board certified by the same or a similar approved board, except as waived by the court under the statute.

40 P.S. § 1302.512(c).[5]

The United States believes that Dr. McCullough will fail each of these requirements as to any testimony he may seek to give about the standard of care applicable to cardiologists, particularly cardiologists in the Philadelphia metropolitan area. Although the United States acknowledges that it is not directly on point, it believes that Spotts v. Small, 61 Pa. D & C 4th 225 (CCP Lanc. 2003), the only case of which it is aware decided under the MCARE Act, generally supports its position.

VIII. NUMBER OF DAYS REQUIRED FOR TRIAL

The United States estimates that its case will take about two days and that the entire trial can be completed in four days.

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[5] The MCARE Act is applicable to this case inasmuch as the Federal Tort Claims Act determines liability by reference to applicable state law. 28 U.S.C. § 1346(b).

IX. STIPULATIONS OF THE PARTIES

The parties have agreed upon the following stipulations:

1. The parties stipulate that if the relevant employees of Riverfront State Prison were called to testify at trial, they would testify in accordance with the reports marked as exhibits J-14.

2. The parties stipulate that if Shawn Carnevale, D.O. were called to testify at trial, he would testify in accordance with page 1, Line 1 to page 22, line 16 of his deposition, exhibit J-20. The parties further stipulate that the exhibits referred to by him in that testimony, and attached to his deposition, exhibit J-20, may be admitted into evidence.

3. The parties stipulate that if Lorraine Taraskus were called to testify at trial, she would testify in accordance with her deposition, exhibit J-21. The parties further stipulate that the exhibits referred to by her in that testimony, and attached to her deposition, exhibit J-21, may be admitted into evidence.

Respectfully submitted,

PATRICK L. MEEHAN
United States Attorney

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VIRGINIA A. GIBSON
Assistant United States Attorney
Chief, Civil Division

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PAUL G. SHAPIRO
Assistant United States Attorney

Dated: November 25, 2003

CERTIFICATE OF SERVICE

The undersigned attorney certifies that true and correct copy of the foregoing Pretrial memorandum was served this date by U.S. Mail on counsel for the parties as follows:

Adam M. Starr, Esquire
Garber and Kotch, LLC
Tall Oaks Corporate Center II
1000 Lenola Road, Suite 101
Moorestown, Cherry Hill, NJ 08057-1020

and by telefacsimile to 856 235-9502.

_____

Paul G. Shapiro
Assistant United States Attorney

Dated: November 25, 2003